

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 and its
amendment (453/2010)**Product: RILSAN® ES NATURAL OR COLOURED
POWDER**

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SDS No.: 001992-001 (Version 3.2)

Date 18.02.2013 (*Cancel and replace : 07.11.2012*)**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Generic Safety Data Sheet

1.1. Identification of the product**Identification of the mixture:** RILSAN® ES NATURAL OR COLOURED POWDER**Grades :** ES NAT, ES NAT EF, ES NAT MAC, ES blanc CR 80-10, ES blanc 840 MAC, ES blanc 1464 EC, ES noir 625 MAC, ES noir 625 MACA, ES noir 710 MAC, ES noir 820 MAC, ES gris 49 MAC, ES gris 940 MAC, ES gris 1812 MAC, ES bleu 2117 MAC, ES bleu 7413 MAC, ES bleu 7539 MAC, ES jaune 7391 MAC, ES beige 7368 MAC, ES rouge 7348 MAC**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the Substance/Mixture :** Anti-corrosion coating of metal components - applied by the electrostatic spraying of coloured or natural powder**1.3. Details of the supplier of the safety data sheet**

Supplier	Arkema POLYAMIDES DE SPECIALITES 420 rue d'Estienne d'Orves 92705 Colombes Cedex, France Téléphone : +33 (0)1 49 00 80 80 Télécopie : +33 (0)1 49 00 83 96 http://www.arkema.com
E-mail address	pars-drp-fds@arkema.com

1.4. Emergency telephone number**+33 1 49 00 77 77**
European emergency phone number : 112**2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****Classification (Regulation (EC) No 1272/2008):**

This mixture is not classified as dangerous according to Regulation (EC) No 1272/2008.

Classification according to EU Directives 1999/45/EC :

This mixture is not classified as dangerous according to Directive 1999/45/EC.

2.2. Label elements**Label elements (REGULATION (EC) No 1272/2008):**

This mixture does not require a label.

2.3. Other hazards**Potential health effects:**

Acute exposure: Contact with the product, when handled at high temperatures, can cause serious burns.

Inhalation: Possible irritation of respiratory system (by dust inhalation).

Eye contact: Risk of eye irritation. (dust)

Physical and chemical hazards:

In the presence of an ignition source: Dust may form explosive mixture in air. Thermal decomposition giving toxic and corrosive products.

Decomposition products: See chapter 10

Other:

Results of PBT and vPvB assessment : This information is not required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical nature of the mixture¹:

Polyamide 11
Possible presence of :
additives
Pigments
Titanium dioxide
Carbon black
Mineral load

¹: See chapter 14 for Proper Shipping Name

²: See the text of the regulation for applicable exceptions or provisions : The transition time according to REACH Regulation, Article 23, is still not expired.

4. FIRST AID MEASURES

4.1. & 4.2. Description of necessary first-aid measures & Most important symptoms/effects, acute and delayed:

Inhalation:

Dust inhalation: Move to fresh air. Blow nose.

Inhalation of vapours due to decomposition of product: Move to fresh air. Oxygen or artificial respiration if needed. In case of persistent problems : Consult a physician.

Skin contact:

Wash immediately, abundantly and thoroughly with soap and water.

On contact with hot product : Cool skin rapidly with cold water after contact with molten material. Remove product with vegetable oil or paraffin. In case of adhesion, do not try to remove the product. Treat the affected areas as thermal burns. Consult a physician.

Eye contact:

Dusts : Wash well-open eyes immediately, abundantly and thoroughly with water. Remove particles remaining under the eyelids. If irritation persists, consult an ophthalmologist.

On contact with hot product : Cool eyes rapidly with cold water after contact with molten polymer. Consult an ophthalmologist immediately.

Ingestion:

In case of problems : Consult a doctor.

Protection of first-aiders:

Dusts : In case of insufficient ventilation, wear suitable respiratory equipment.

4.3. Indication of immediate medical attention and special treatment needed, if necessary : No data available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray

Unsuitable extinguishing media: High volume water jet, Fine dust dispersed in air may ignite, risk of dust explosion

5.2. Special hazards arising from the substance or mixture:

300 - 350 °C: possible formation of, Monomer and oligomer (white fumes)

Temperature exceeding 350°C: Thermal decomposition giving toxic and corrosive products ; Carbon monoxide, Ammonia, Amino derivatives

Temperature exceeding 500 °C : Formation of toxic products through combustion: Carbon oxides, Hydrogen cyanide (hydrocyanic acid), (traces)

5.3. Advice for firefighters:

Specific methods:

Ensure a system for the rapid emptying of containers. In case of fire nearby, remove the bags.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Prohibit all sources of sparks and ignition - Do not smoke. Avoid contact with skin and eyes and inhalation of dust. Wear a dust mask and safety glasses/goggles if necessary. In case of insufficient ventilation, wear suitable respiratory equipment.

6.2. Environmental precautions:

Do not release into the environment. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up:

Recovery:

Shovel into suitable container for disposal. Sweep up to prevent slipping hazard. No sparking tools should be used.

Elimination:

Destroy the product by incineration (in accordance with local and national regulations).

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:

Storage and handling precautions applicable to products: Solid. DUST FORMING, forming EXPLOSIVE mixtures with air(In the presence of an ignition source).

Ensure ventilation of work areas and extraction of dust or vapours likely to be given off during conversion operations (product handled when hot). Provide showers, eye-baths. Provide water supplies near the point of use. Provide electrical earthing of equipment.

Safe handling advice:

At all stages of the operation, do not exceed the temperature at which decomposition into toxic and corrosive products will occur. Avoid creating dust. In case of dust formation, wear a dust mask. Prohibit all sources of sparks and ignition - Do not smoke. Take precautionary measures against static discharges. Avoid charging as a dust shower – risk of product flammability. Keep well away from naked flames. In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:

Avoid contact with the skin and the eyes. Avoid breathing dust. Product handled when hot : Avoid inhalation of vapours. When using do not eat, drink or smoke.

Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Store away from moisture and heat to maintain the technical properties of the product. Remove all sources of ignition. Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres.

Do not store above: 60 °C

Incompatible products:

None known.

Packaging material:

Recommended: Paper bags lined with polyethylene, Cardboard lined with polyethylene liner

7.3. Specific end uses: None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values (dust)

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	2008	TWA	–	10	Inhalable particles.
ACGIH (US)	2008	TWA	–	3	Respirable particles.

Exposure Limit Values

Cobalt aluminate blue spinel

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	2009	TWA	–	1	Respirable fraction.
ACGIH (US)	2008	TWA	–	0,02	as Co

Cobalt zinc aluminate blue spinel

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	2007	TWA	–	0,02	as Co

Titanium dioxide

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	2007	TWA	–	10	–

Antimony nickel titanium oxide yellow

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	2007	TWA	–	0,1	Inhalable fraction. as Ni
ACGIH (US)	2007	TWA	–	0,5	as Sb

Calcium carbonate

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	01 2006	TWA	–	10	The value is for particulate matter containing no asbestos and <1% crystalline silica.

Derived No Effect Level (DNEL):

This information is not required.

Predicted No Effect Concentration:

This information is not required.

8.2. Exposure controls:

General protective measures:

Ensure ventilation of work areas and extraction of dust or vapours likely to be given off during conversion operations (product handled when hot).

Personal protective equipment:

Respiratory protection:

Effective dust mask. Recommended Filter type: P2
In the case of hazardous fumes, wear self contained breathing apparatus.

Hand protection:

Gloves Natural Rubber, Nitrile rubber

Eye/face protection:

Safety glasses

Skin and body protection:

Antistatic boots

Environmental exposure controls: See chapter 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Physical state (20°C): solid
Form: powder
Colour: natural colour, or, coloured
Granulometry: approximately 1 - 110 µm
Odour: No information available.
Olfactory threshold: No data available.
pH: not applicable
Melting point/range : > 180 °C
Softening point : VICAT > 140 °C

Boiling point/boiling range :	Not relevant, Decomposes on heating.
Flash point:	not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Vapour pressure:	No data available.
Vapour density:	No data available.
Relative density:	No data available.
Bulk density:	400 - 600 kg/m ³ , at 20 °C
Water solubility:	insoluble, (on the basis of its structure) at 20 °C
Partition coefficient: n-octanol/water:	No data available.
Autoignition temperature:	450 °C (Standard ASTM 19-29)
Decomposition temperature:	350 °C
Viscosity, kinematic:	not applicable
Explosive properties:	
Explosivity:	In the presence of an ignition source: Dust may form explosive mixture in air.
Oxidizing properties:	Not relevant (due to the chemical structure)

9.2. Other data:

Solubility in other solvents:	Insoluble in most organic solvents
Active oxygen content:	Oxygen index
	0,23 %
	Method: Standard : NF T 51071

10. STABILITY AND REACTIVITY

10.1. & 10.2. Reactivity & Chemical stability:

The product is stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions:

In the presence of an ignition source: Dust may form explosive mixture in air.

10.4. Conditions to avoid:

Temperatures above 60 °C
(to maintain the technical properties of the product).
Store away from moisture and heat to maintain the technical properties of the product. Remove all sources of ignition.

10.5. Incompatible materials to avoid:

Strong acids and oxidizing agents

10.6. Hazardous decomposition products:

Thermal decomposition:

Decomposition temperature: 350 °C
300 - 350 °C: possible formation of: Monomer and oligomer (white fumes)
Temperature exceeding 350°C: Thermal decomposition giving toxic and corrosive products : Carbon monoxide, Ammonia, Amino derivatives
Temperature exceeding 500 °C : Formation of toxic products through combustion: Carbon oxides, Hydrogen cyanide (hydrocyanic acid), (traces)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity:

Ingestion: According to its composition, can be considered as : Slightly harmful by ingestion

Dermal: According to its composition, can be considered as : Slightly harmful in contact with skin

Local effects (Corrosion / Irritation / Serious eye damage):

Skin contact:

• In man :

Polymer: According to its composition, can be considered as : Slightly or not irritating to skin

Contact with the product, when handled at high temperatures, can cause serious burns.
At high temperature, products of thermal decomposition can be irritating to skin

Eye contact:

• In man :

Polymer: According to its composition, can be considered as : Slightly or not irritating to eyes

Possible irritation of eyes, (Physical effect of dust)
Contact with the product, when handled at high temperatures, can cause serious burns.
At high temperature, products of thermal decomposition can be irritating to eyes

Respiratory or skin sensitization:

Inhalation:

No data available.

Skin contact:

• In man :

No reported cases of cutaneous sensitization in man

CMR effects :

Polymer: No particular problems for man

Specific target organ toxicity :

Single exposure :

Inhalation:

• In man :

Dust inhalation:
Possible irritation of respiratory system , (Physical effect of dust)
At high temperature, products of thermal decomposition can be irritating to respiratory system

Repeated exposure:

• In man :

Polymer: No particular problems for man
Effects of repeated exposure to dusts can include :
Risk of irritation of respiratory system

Aspiration hazard:

Not relevant

12. ECOLOGICAL INFORMATION

12.1. Toxicity :

Aquatic invertebrates:

No data available.

12.2. Persistence and degradability :

Biodegradation (In water):

Inert polymer , Not biodegradable on the basis of its structure

12.3. Bioaccumulative potential : No data available.

12.4. Mobility in soil - Distribution among environmental compartments: No data available.

12.5. Results of PBT and vPvB assessment :

This information is not required.

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment:

Disposal of product:

Do not dispose of waste into sewer. Recycle if possible. Destroy the product by incineration (in accordance with local and national regulations).

Disposal of packaging:

Do not release into the environment. Recycle if possible. Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national regulations).

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Safety data sheets: according to Regulation (EC) No. 1907/2006 and its amendment (453/2010)

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

Listed in:

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Antimony nickel titanium oxide yellow Number 27
Restrictions for the placing on the market and use in articles in contact with skin.

15.2. Chemical Safety Assessment:

This information is not required.

INVENTORIES:

EINECS: Conforms to
TSCA: Conforms to
AICS: Consult ARKEMA
DSL: Consult ARKEMA
ENCS (JP): Consult ARKEMA
KECI (KR): Conforms to
PICCS (PH): Conforms to
IECSC (CN): Conforms to

16. OTHER INFORMATION

Update:

Safety datasheet sections which have been updated:		Type:
1	Grades	Additions

Thesaurus:

NOAEL : No Observed Adverse Effect Level (NOAEL)
LOAEL : Lowest Observed Adverse Effect Level (LOAEL)
bw : Body weight
food : oral feed
dw : Dry weight
vPvB : very Persistent and very Bioaccumulative
PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).